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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,039	03/14/2001	Kazuhiro Kobayashi	204663US2	1665
22850	7590	12/18/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HOANG, QUOC DINH	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/805,039	<b>Applicant(s)</b> KOBAYASHI ET AL.	
	<b>Examiner</b> Quoc D Hoang	<b>Art Unit</b> 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All   b) ☐ Some \* c) ☐ None of:  
     1. ☐ Certified copies of the priority documents have been received.  
     2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Amendment filed on 09/08/2003 has been entered and made of record as Paper No. 09/08/2003. In the Amendment, applicant cancels claims 2 and 5-28. Claims 1, 3 and 4 are remained for examination in Paper No. 09/08/2003 is acknowledged.

### ***Drawings***

2. Figures. 57-60 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior art, in view of Hong et al, (US Pat 6,429,057).

Regarding claims 1, 3 and 4, Applicants' Admitted Prior art., teaches a thin film transistor array substrate comprising: an insulating substrate (page 3, lines 15-25 and Fig. 57); a gate line 51 formed on said insulating substrate (page 3, lines 15-25 and Fig. 57); a gate insulating film 52 provided on said gate line 51 (page 4, lines 1-8 and Fig.

57); a semiconductor layer 53 provided on said gate insulating film 52 (page 4, lines 1-8 and Fig. 57); a source line 55, a source electrode 56 and a drain electrode 57 provided on said semiconductor layer 53 (page 4, lines 8-15 and Fig. 57); an inter-layer insulating film 59 formed on said source line 55, a source electrode 56 and a drain electrode 57 (page 4, lines 8-15 and Fig. 57); a pixel electrode 61 formed on said inter-layer insulating film 59; wherein said inter-layer insulating film 59 is provided with a first contact hole, a second contact hole and a third contact hole, said first contact hole penetrating said inter-layer insulating film to reach said drain electrode 57, said second contact hole extending to said source line 55 through said inter-layer insulating film 59, said third contact hole extending to said gate line 51 through said gate insulating film and said inter-layer insulating film; and wherein said first contact hole, said second contact hole and said third contact hole are covered with a pattern made of a material of said pixel electrode (page 4, lines 8-15 and Fig. 57).

Applicants' Admitted Prior art., do not expressly teach the source electrode and the drain electrode are surrounded by the semiconductor layer.

Hong et al., teach the source electrode 65 and the drain electrode 66 are surrounded by the semiconductor layer 42 (col. 11, lines 1-40 and Fig. 4). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the source/drain electrode teaching of Hong et al with Applicants' Admitted Prior art, because it would have reduced number of photolithography steps as taught by Hong et al, column 1, lines 64-67.

***Response to Arguments***

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5. Applicant's arguments filed on 09/08/2003 have been fully considered but they are not persuasive. Clearly in column 11, lines 1-40 and Fig. 4 shows wherein a part of the semiconductor layer 42 surrounding a source electrode 66 exists only on the first metallic pattern 26 at a source electrode part in a pixel region.

**Conclusion**


6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc Hoang whose telephone number is (703) 272-1780. The examiner can normally be reached on Monday-Friday from 8.00 AM to 5.00 PM.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms., can be reached on <sup>571</sup>(703) 272-1787.

Quoc Hoang <sup>an</sup>  
Patent examiner/AU 2818.

  
HOAI HO  
PRIMARY EXAMINER